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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,067	07/30/2003	William J. Thomas	100202150-1	9444

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EXAMINER

CHEN, ALAN S

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/630,067

Applicant(s)

THOMAS, WILLIAM J.

Examiner

Alan S. Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43 is/are pending in the application.  
4a) Of the above claim(s) 22-43 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-21 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Given applicant's admission in the arguments submitted on 08/28/2006 regarding matters mentioned in the 35 U.S.C. §112 rejection, the 35 U.S.C. §112 rejection is withdrawn.
2. Applicant's arguments filed 08/28/2006 regarding claims 17-21 have been fully considered but they are not persuasive. Applicant imports arguments for claims 1 and 9. However, the claim language used in claims 17-21 is not the same and of a different scope. Claims 17-21 do not require attempting to identify the capabilities of the replaceable electronic module of claim 1 and clearly does not require the comparison of configuration information between what is stored on the replaceable electronic module with configuration stored in a persistent memory that was not on the previously installed nor replaceable electronic modules as current required by amended claim 9. Claims 17-21 also does not apply to Applicant's arguments in item 11, page 13 of the Remarks since claims 17-21 does not require sending configuration information from a replaceable electronic module and receiving and storing the configuration information in a persistent memory that is not resident on the replaceable electronic module. Claims 17-21 simply does not limit where the stored configuration information originated from. Lastly, Claims 17 and 18 are not expressly addressed, Examiner has just assumed Applicant wishes to apply the arguments from claims 1 and 9. Again, given the language of claims 17 and 18, they are clearly of different in scope to 1 and 9.

Examiner maintains his rejection of claims 17-21 as reiterated again in this Office Action.

3. Applicant's arguments with respect to claim 1-8 have been considered but are moot in view of the new ground(s) of rejection.

It should be noted that Applicant's arguments in claim 1 regarding the limitation of storing the received first configuration information on a persistent memory device not present on the replaceable electronic module is not persuasive. Applicant argument that the received first configuration information from the replaceable electronic module is subsequently stored on persistent memory not on the replaceable electronic module, this not being reflected in Goud. Examiner does not believe applicant's argument is commensurate with the scope of the claims. Under the broadest reasonable interpretation of claim 1, the ordering of the listed limitations does not require that the method follow the listed ordering. There is no explicit recitation of steps in the method claims. Applicant's arguments are given under the premise that the ordering of the limitations is required. In Goud, clearly stores configuration information external to the blade (*Fig. 1, element 160 is external to the blade*). This information is downloaded to the replaceable electronic module (*blade element 105*) in which various components "receive" this firmware that relates to the capabilities of the replaceable electronic module.

4. Applicant's arguments based on the amendment submitted 08/28/2006 with respect to the prior art rejection of claims 9-16 have been fully considered and are persuasive. The prior art rejection of claims 9-16 has been withdrawn.

***Election/Restrictions***

5. Applicant's election with traverse of claims 1-21 in the reply filed on 08/28/2006 is acknowledged. The traversal is was made without any arguments and therefore is not found persuasive.

The requirement is still deemed proper and is therefore made FINAL.

6. This application currently contains claims 22-43 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 9-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Lines 7-8 of claim 9 state, "...configuration stored in a persistent memory that is not on the previously installed nor replaceable electronic modules". It is indefinite as to what is meant by the reference to "replaceable electronic modules". There is no prior mention of other replaceable electronic modules, except for the previous and currently installed modules. Examiner assumes "replaceable electronic modules" in lines 7-8 refers to the currently installed replaceable electronic module.

Claims 10-16 are rejected as being dependent on a rejected base claim.

***Claim Rejections - 35 USC § 102***

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9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section. 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. Pub. No. 2004/0243798 to Goud et al. (Goud).

11. Per claims 17 and 18, Goud discloses a method of upgrading a replaceable electronic module (*Paragraphs 7 and 15, updating BIOS; Fig. 2; Fig. 1, elements 105 and 190 are the replaceable electronic module*), comprising: storing configuration information in a persistent memory (*NVRAM shown in Fig. 1, elements 110 is configuration information, also BIOS from element 160 is downloaded and stored in element 105*) on the replaceable electronic module (*Fig. 1, elements 105 and 190*), wherein the configuration information enables a previously unenabled capability of the replaceable electronic module (*Goud expressly states in paragraph 17, the preboot BIOS and boot block BIOS and main BIOS provide functionality greater than or radically different that what was originally intended, e.g., utilizing/permitting parts of the hardware not originally in the boot BIOS*); and storing the configuration information in a persistent memory located off the replaceable electronic module (*main BIOS stored externally, Fig. 1, element 165, even though downloaded and used at the blade 105*).

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12. Per claim 19, Goud discloses a method of dynamically maintaining configuration information of a replaceable electronic module (*blade management agent 150 and main BIOS 165 can dynamically add new BIOS versions based on what blades are added, paragraph 15*), comprising: detecting when the replaceable electronic module is assigned a function (*Fig. 2, element 220, function is whether there is more BIOS information to be loaded via the blade management agent*), sending previously stored configuration information to the replaceable electronic module (*main BIOS is loaded into the OS of blade, Fig. 2, elements 250-290*), wherein the previously stored configuration information corresponds to the assigned function (*the function of finding the main BIOS by the Blade Management Agent directly corresponds to the loading of main BIOS to the OS*); and storing the configuration information on the replaceable electronic module (*paragraph 26, "...blade processor may load the main BIOS portion into a local memory device..."*), wherein the configuration information enables the replaceable electronic module to utilize a hardware capability of the replaceable electronic module to be executed by the replaceable electronic module (*Goud expressly states in paragraph 17, the preboot BIOS and boot block BIOS and main BIOS provide functionality greater than or radically different than what was originally intended, e.g., utilizing/permitting parts of the hardware not originally in the boot BIOS*).

13. Per claims 20-21, Goud discloses claim 19, wherein the assigned function is a logical connection to a disk drive (*blade management agent, element 150 looks for main BIOS for blade, the main BIOS is stored on a non-removable disk, e.g., a disk drive,*

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*Paragraph 19*), the main BIOS image being run and executed by OS on the blade (*Fig. 2, elements 250-290*).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claims 1-8 are rejected under 35 USC 103(a) as being unpatentable over Goud in view of US Pat. Pub. No. 2004/0230785 to Ramiz et al. (Ramiz).

17. Per claim 1, Goud discloses a method of automatically maintaining configuration information of a replaceable electronic module (*Fig. 1, element 150 and paragraphs 18-21, Goud discloses the blade management agent storing information of what BIOS each blade should be running. Note this is all "automatic" in the sense that a system administrator initially associates/defines which main BIOS belongs to each blade, but afterwards the blade management agent automatically runs the appropriate BIOS each time the system is booted*), comprising: receiving an indication that the replaceable



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electronic module has been installed (*Fig. 2, steps 205-220, Paragraphs 22-24, each blade has its own pre-boot BIOS which when the blade is initially installed or every time the system is powered-up, the pre-boot BIOS causes the signal/indication to be sent to the blade management agent, "...an attempt may be made to communicate with a blade management agent. This communication may facilitate the accessing of the main BIOS portion..."*); receiving from the replaceable electronic module first configuration information related to capabilities of the replaceable electronic module to utilize permitted portions of its hardware (*first configuration information is the both the preboot BIOS stored on the blade, Fig. 1, element 110, and main BIOS that is stored off the blade, Fig. 2, element 160; Paragraph 17 details what this main BIOS purpose is, i.e., "...provide the capability to perform the operations...not provided by the boot block BIOS 110. Such operations may include, but are not limited to...POST...complex hardware initialization". Goud expressly states in paragraph 17, the preboot BIOS and boot block BIOS and main BIOS provide functionality greater than or radically different that what was originally intended, e.g., utilizing/permitting parts of the hardware not originally in the boot BIOS*); and storing at least some of the received first configuration information in a first persistent memory (*Fig. 1, element 160; Paragraph 14, BIOS is stored in firmware or other non-volatile memory structure*) that is not on the replaceable electronic module (*Fig. 1, element 165, main BIOS is not on the blades, e.g., elements 101 or 190; Paragraph 19 states "...retrieve main-BIOS portions 165 from a number of locations...such as, a remote secure server, a removable disk, a non-removable disk, or a network interface..."*) and that is thereafter accessible by a replaceable electronic

module manager (*Fig. 1, element 150, Blade management agent*) regardless of whether the replaceable electronic module remains installed or is subsequently uninstalled (*main BIOS, element 165, is a separate system than blades, elements 101 and 190, regardless of whether the blade is installed or not, main BIOS information will remain accessible to any other blade requestor*).

Goud does not disclose expressly identifying capabilities of the replaceable electronic module, although Goud does indeed disclose various versions of the BIOS/firmware being used (*Paragraph 15*), alluding to different capabilities of the replacement module based on version number.

Ramiz discloses expressly that firmware/BIOS version numbers are used to identify capabilities of a blade (*Paragraph 27*).

Goud and Ramiz are analogous art because they are from the same field of endeavor in updating firmware of a blade using the most appropriate firmware version (*Paragraph 13 of Ramiz discloses blades; Ramiz's invention directly deals with finding the best firmware for a particular controller, element 50, resident on the blade*).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to utilize the version number in Goud to identify the capabilities of the blade and thereby select the firmware with the version number that is most appropriate for the blade.

The suggestion/motivation for doing so would have been to select the newest or best of firmware from a group of compatible firmware files using the version number since it is a simple and efficient way to identify the capabilities of the blade without

having to list out verbatim, all the capabilities of the blade. Instead a single string representative of the capabilities would suffice.

Therefore, it would have been obvious to combine Ramiz with Goud for the benefit of simplicity and efficiency in identifying the capabilities of the blade when choosing from multiple firmware versions.

18. Per claims 2 and 3, Goud combined with Ramiz discloses claim 1, Goud further comprising: storing the first configuration information in a second persistent memory on the replaceable electronic module (*Fig. 1, element 110, the boot block BIOS, is clearly on the blade in a separate non-volatile memory*) and using the first configuration information stored in the second persistent memory to enable a hardware/software capability of the replaceable electronic module (*Paragraph 14, "...boot block BIOS may facilitate the basic non-processor hardware 120 initialization..." which would require running initialization routines in software and hardware*).

13. Per claims 4-8, Goud combined with Ramiz discloses claim 1, wherein Goud shows the exact same procedure will be followed as stated claims 1, if the same blade was removed, i.e., for cleaning or upgrading a part on the blade and the replaced back in upon completion, since the configuration information, particularly the blade identification will be exactly the same.

***Allowable Subject Matter***

19. Claims 9-16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

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The following is the statement of reasons for the indication of allowable subject matter: The prior art disclosed by the applicant and cited by the Examiner fail to teach or suggest, alone or in combination, **all** the limitations of the independent claim(s) (claim 9), particularly a method of automatically maintaining configuration information of a replaceable electronic module where automatic determination of whether a currently installed module is a replacement of a previously installed module, is made by comparing configuration information stored in the currently installed module with configuration information external to both the current and previously installed modules.

### ***Conclusion***

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ASC  
10/12/2006



**KIM HUYNH**  
**SUPERVISORY PATENT EXAMINER**

10/18/06